

IN THE CLAIMS

Please amend the Claims as follows:

1. (TWICE AMENDED) A method of fabricating a titanium disilicide film in the manufacture of an integrated circuit comprising:

providing a semiconductor substrate having silicon
5 regions to be silicided;

depositing a titanium layer directly overlying said silicon regions to be silicided;

subjecting said substrate to a laser annealing whereby said titanium is transformed to phase C40
10 titanium disilicide where it overlies said silicon regions and wherein said titanium not overlying said silicon regions is unreacted;

subjecting said substrate to a second annealing whereby phase C54 titanium disilicide is grown overlying
15 said phase C40 titanium disilicide and whereby said phase C40 titanium disilicide is transformed to phase C54 titanium disilicide; and

removing said unreacted titanium layer to complete formation of said titanium disilicide film in the
20 manufacture of said integrated circuit.

4. (AMENDED) The method according to Claim 1 wherein said laser annealing uses a laser having a wavelength of 1.06 nm and energy between about 0.5 and 1.5 Joules/cm².

5. (AMENDED) The method according to Claim 1 wherein said laser annealing uses an Excimer laser having a wavelength of 248 nm and energy between about 0.1 and 1.2 Joules/cm².

15. (TWICE AMENDED) A method of fabricating a titanium disilicide film in the manufacture of an integrated circuit comprising:

providing a semiconductor substrate having silicon regions to be silicided;

depositing a titanium layer directly overlying said silicon regions to be silicided;

subjecting said substrate to a laser annealing whereby said titanium is transformed to phase C40 titanium disilicide where it overlies said silicon regions and wherein said titanium not overlying said silicon regions is unreacted;

subjecting said substrate to a second annealing at a temperature of less than 700 °C whereby said phase C40 titanium disilicide is transformed to phase C54 titanium disilicide; and